

# INTERNATIONAL SEARCH REPORT

ational Application No  
/GB2004/002956

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C08F10/02 C08F2/34

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	EP 1 359 168 A (BP LAVERA SNC) 5 November 2003 (2003-11-05) column 3, line 14 - column 3, line 28; claims 1-10 ----- US 6 144 897 A (SELLIERS JACQUES DE) 7 November 2000 (2000-11-07) the whole document ----- WO 01/49751 A (PIRAGUACY DEMORO ESDRAS ;DUARTE BRAGANCA ANTONIO LUIZ (BR); MARTIN) 12 July 2001 (2001-07-12) the whole document ----- EP 0 855 411 A (BP CHEMICALS SNC ;BP CHEM INT LTD (GB)) 29 July 1998 (1998-07-29) cited in the application the whole document -----	1-4
X		1-4
X		1-4
A		1-4
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the International filing date but later than the priority date claimed

- \*T\* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

15 October 2004

Date of mailing of the International search report

21/10/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Van Golde, L

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ational Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 93/24542 A (BP CHEMICALS SNC ;BP CHEM INT LTD (GB); CROUZET PIERRE (FR)) 9 December 1993 (1993-12-09) cited in the application the whole document -----	1-4
A	WO 96/10590 A (EXXON CHEMICAL PATENTS INC) 11 April 1996 (1996-04-11) the whole document -----	1-4

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1359168	A	05-11-2003	EP WO	1359168 A1 03093332 A1		05-11-2003 13-11-2003
US 6144897	A	07-11-2000	BE AT AU AU BR CA CN CZ DE DE EA WO EP ES HU JP NO PL	1009406 A3 177761 T 704563 B2 6124696 A 9609240 A 2220316 A1 1192222 A 9703985 A3 69601794 D1 69601794 T2 343 B1 9641822 A1 0830394 A1 2131945 T3 9803021 A2 2000500060 T 975780 A 323911 A1		04-03-1997 15-04-1999 29-04-1999 09-01-1997 11-05-1999 27-12-1996 02-09-1998 18-03-1998 22-04-1999 07-10-1999 29-04-1999 27-12-1996 25-03-1998 01-08-1999 28-04-1999 11-01-2000 06-02-1998 27-04-1998
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EP 0855411	A	29-07-1998	FR AT AU AU BG BG BR CA CN CZ DE DE DE EA EG EP ES HU ID JP NO PL PT RO SG SK TR	2758823 A1 240977 T 738591 B2 5214698 A 64286 B1 102208 A 9800450 A 2227703 A1 1192443 A , B 9800180 A3 69814701 D1 69814701 T2 855411 T1 3578 B1 20973 A 0855411 A1 2125213 T1 9800123 A2 19756 A 10279612 A 980288 A 324450 A1 855411 T 118954 B 55453 A1 8598 A3 9800111 A2		31-07-1998 15-06-2003 20-09-2001 30-07-1998 31-08-2004 31-08-1998 29-06-1999 24-07-1998 09-09-1998 12-08-1998 26-06-2003 08-04-2004 22-07-1999 26-06-2003 30-08-2000 29-07-1998 01-03-1999 28-12-1998 30-07-1998 20-10-1998 27-07-1998 03-08-1998 31-10-2003 30-01-2004 21-12-1998 13-03-2000 21-08-1998

## INTERNATIONAL SEARCH REPORT

National Application No

/GB2004/002956

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 0855411	A	US	6284848 B1	04-09-2001
		US	2001037004 A1	01-11-2001
		ZA	9800417 A	19-07-1999
WO 9324542	A	09-12-1993	FR 2691970 A1	10-12-1993
			BR 9305539 A	27-12-1994
			CN 1083820 A	16-03-1994
			CZ 9400189 A3	15-06-1994
			EP 0598094 A1	25-05-1994
			WO 9324542 A1	09-12-1993
			HU 68128 A2	21-03-1995
			JP 7502300 T	09-03-1995
			MX 9303367 A1	29-07-1994
			PL 302315 A1	08-08-1994
			SK 11394 A3	07-09-1994
WO 9610590	A	11-04-1996	US 5436304 A	25-07-1995
			AT 185821 T	15-11-1999
			AU 697428 B2	08-10-1998
			AU 3641195 A	26-04-1996
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			DE 69512928 T2	15-06-2000
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			ES 2140709 T3	01-03-2000
			GR 3032334 T3	27-04-2000
			JP 3356434 B2	16-12-2002
			JP 10506936 T	07-07-1998
			NO 971275 A	19-03-1997
			PL 319376 A1	04-08-1997
			PT 784637 T	28-04-2000
			RU 2139888 C1	20-10-1999
			WO 9610590 A1	11-04-1996

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY PCT

(Chapter II of the Patent Cooperation Treaty)

REC'D 15 JUL 2005

## (PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/GB2004/002956	International filing date (day/month/year) 08.07.2004	Priority date (day/month/year) 11.07.2003	
International Patent Classification (IPC) or national classification and IPC C08F10/02, C08F2/34			
Applicant BP CHEMICALS LIMITED et al			

<p>1. This report is the International preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> <i>sent to the applicant and to the International Bureau</i> a total of sheets, as follows:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> <p>b. <input type="checkbox"/> <i>(sent to the International Bureau only)</i> a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the opinion</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input checked="" type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>	

Date of submission of the demand 03.02.2005	Date of completion of this report 14.07.2005
Name and mailing address of the International preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Van Golde, L Telephone No. +49 89 2399-8521



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2004/002956

**Box No. I Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements\* of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

**Description, Pages**

1-10 as originally filed

**Claims, Numbers**

1-4 as originally filed

**Drawings, Sheets**

1/12-12/12 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3.  The amendments have resulted in the cancellation of:

- the description, pages
- the claims, Nos.
- the drawings, sheets/figs
- the sequence listing (specify):
- any table(s) related to sequence listing (specify):

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages
- the claims, Nos.
- the drawings, sheets/figs
- the sequence listing (specify):
- any table(s) related to sequence listing (specify):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2004/002956

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-4
	No: Claims	
Inventive step (IS)	Yes: Claims	1-4
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-4
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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**Box No. VI Certain documents cited**

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**1. Certain published documents (Rule 70.10)**

and / or

**2. Non-written disclosures (Rule 70.9)**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.  
**PCT/GB2004/002956**

**POINT V:**

1. D1: EP-A-1 359 168 (BP LAVERA SNC) 5 November 2003 (2003-11-05)  
D2: US-A-6 144 897 (SELLIERS JACQUES DE) 7 November 2000 (2000-11-07)  
D3: WO 01/49751 A (PIRAGUACY DEMORO ESDRAS ;DUARTE BRAGANCA ANTONIO LUIZ (BR); MARTIN) 12 July 2001 (2001-07-12)  
D4: EP-A-0 855 411 (BP CHEMICALS SNC ;BP CHEM INT LTD (GB)) 29 July 1998 (1998-07-29)  
D5: WO 93/24542 A (BP CHEMICALS SNC ;BP CHEM INT LTD (GB); CROUZET PIERRE (FR)) 9 December 1993 (1993-12-09)  
D6: WO 96/10590 A (EXXON CHEMICAL PATENTS INC) 11 April 1996 (1996-04-11)
2. The claimed subject matter is novel over the teachings of D2 to D6 as none of these documents disclose all features of the present claims (Article 33 (2) PCT).
3. Also an inventive step is given for the claimed subject matter, as the specific combination of technical features of the present claims is not made obvious by one of or by a combination of D2 to D6 (Article 33 (3) PCT).
4. Industrial applicability is given for the claimed subject matter (Article 33 (4) PCT).

**POINT VI:**

5. D1: EP-A-1 359 168 (BP LAVERA SNC) 5 November 2003 (2003-11-05)

**Box No. VIII (iii) DECLARATION: ENTITLEMENT TO CLAIM PRIORITY**

*The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.*

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

In relation to this International Application, BP CHEMICALS LIMITED is entitled to claim priority of the earlier European No. 03358010.1 dated 11th July 2003 by virtue of the following:

An agreement between BP LAVERA S.N.C. (employers of the inventor SELO, Jean-Loic) and BP CHEMICALS LIMITED dated 1st January 2002.

This declaration is made for the purposes of all designations.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".

**Box No. VIII (iv) DECLARATION: INVENTORSHIP** (only for the purposes of the designation of the United States of America)  
*The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (iv) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.*

**Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv))  
for the purposes of the designation of the United States of America:**

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/..... (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: .....

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: SELO, Jean-Loic .....

Residence: Sausset Les Pins, France  
(city and either US state, if applicable, or country)

Mailing Address: 21 rue Darius Milhaud, 13960 Sausset Les Pins, France .....

Citizenship: French .....

Inventor's Signature: .....

(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: .....

(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

Name: .....

Residence: .....

(city and either US state, if applicable, or country)

Mailing Address: .....

Citizenship: .....

Inventor's Signature: .....

(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: .....

(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".